

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/049969 A1

(51) International Patent Classification⁷: **F01C 1/344,**
F02B 53/02

(21) International Application Number:
PCT/CA2004/001989

(22) International Filing Date:
19 November 2004 (19.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2,450,542 21 November 2003 (21.11.2003) CA

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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

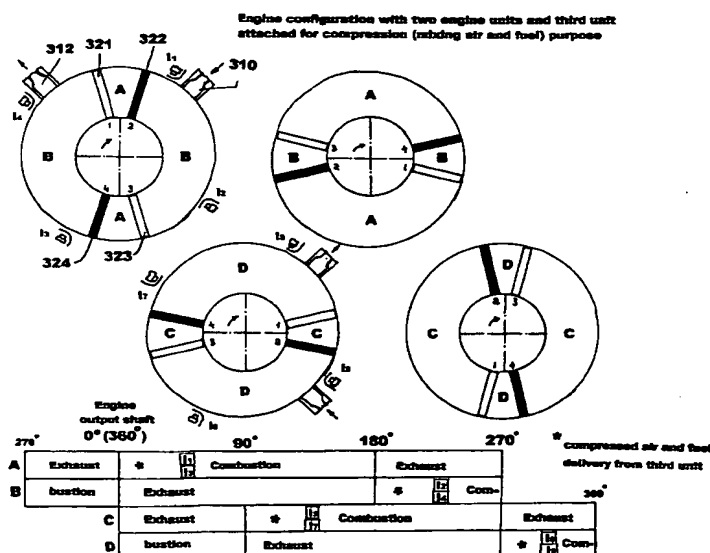
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: ORBITAL ENGINE/PUMP WITH MULTIPLE TORIDAL CYLINDERS



(57) Abstract: The orbital engine or pump comprising of drive train, having several elliptical gears each rotating around focal point with focal distance defined as function of minimum vanes opening, and toroidal cylinders each having inside two impellers with radial vanes continuously rotating with oscillation through a series of identical elliptical gears with one gear on each impeller shaft and second gears in mesh located on input/output shaft out of phase allowing synchronization of cycles performed in each chamber inside toroidal cylinders positioned planetary to input/output shaft. Some of the chambers could be selectively allocated to perform suction, compression, vacuum and combustion with air, gas, steam and liquid media through efficient internal rotary valves attached to impellers or housing and in most cases, eliminating the need for external valving.